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Taming the Bear
Countering Russian Energy Dominance in Europe

by

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Abstract

European energy supplies are not secure. While individual nations have varying levels of energy security, too many European Union (EU) members, particularly those in Central and Eastern Europe, rely almost completely upon Russian state-owned monopolies for their energy supply. These monopolies act at the behest of the Kremlin and political motivations often outweigh financial incentives. The Putin administration has proved time and again in Ukraine, Czech Republic, Belarus, Poland, the Baltics, Georgia and others nations that it is willing and able to wield its energy dominance as a weapon of foreign policy. This paper's thesis is to determine how the United States and EU can limit this Russian influence over Europe.

The paper begins with an analysis of the current key issues in the European-Russian energy relationship, including pipelines and infrastructure, Russian politics in the energy industry, and a history of past energy disputes while building an argument on why action is required. It then examines potential methods of countering Russian influence through increasing pipeline, supplier, and energy source diversity; enforcing current laws; and reforming the EU energy market. Critical analysis shows that gas market reform and diversifying suppliers are the best methods.

I. Introduction

The world has an imbalance between the nations that control global energy resources and those that utilize them. The 30 nations of the Organization for Economic Cooperation and Development (OECD) plus India and China produce 76 percent of the global Gross Domestic Product (GDP),¹ but only control 11 percent of the world's proven oil and gas reserves.² In contrast, the 12 nations of the Organization of Petroleum Exporting Countries (OPEC) and Russia control three quarters of oil and gas reserves while producing only eight percent of global GDP. This imbalance is growing as energy resource reserves within OECD nations rapidly deplete. The trend of economically powerful nations (primarily democracies) growing increasingly dependent upon energy-rich nations (largely authoritarian) will define the political landscape for the foreseeable future.

Of particular interest is the relationship between Europe and Russia. In the 18 years since the dissolution of the Soviet Union, Russia has regained some of its former influence in global affairs. Under Vladimir Putin's control, the nation has emerged from the chaos of the post-Soviet 1990s thanks in large part to its vast natural resources, particularly oil and natural gas. Through bilateral agreements, primarily via its two state-run quasi-monopolies of Gazprom and Transneft, Russia is the source of 33 percent of Europe's oil imports and 40 percent of its natural gas.³ This control of the energy supply has secured economic and political leverage for the Kremlin, particularly over the former

¹ CIA World Factbook, *Country Comparisons: GDP by Purchasing Power Parity*, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2001rank.html> (accessed 12 May 09). Percentage calculations performed by author.

² Energy Information Administration (EIA), *World Proved Reserves of Oil and Natural Gas*, <http://www.eia.doe.gov/emeu/international/reserves.html> (accessed 12 May 09). Percentage calculations performed by author.

³ Energy.EU. *Europe's Energy Portal*. <http://www.energy.eu/#dependency> (accessed 12 May 09).

Soviet republics that have recently joined the North Atlantic Treaty Organization (NATO) and the European Union (EU). In recent years, this leverage has been used both as a blunt instrument of foreign policy and for subtler forms of political coercion. This is concerning for the United States because of the vulnerability of Europe to Russian influence. Real or perceived threats of Kremlin retaliation have resulted in divisions within the European Union not only on matters concerning Russia but in political matters worldwide. This poses a question for Western leaders and the thesis for this paper: How should the US and the EU counter Russian endeavors to dominate the energy market?

This paper will attempt to answer this question by first demonstrating that Russia is, indeed, using control over its national oil and gas giants to corner the energy supply to Europe. A discussion of key issues will lay the groundwork for this argument by examining the current energy architecture and the relationship between the Russian ruling elite and its energy industry. Specific examples of Kremlin coercion will be cited, detailing how threats and disruptions have been used to influence dependent nations as well as Europe and the United States.

This paper will then examine potential solutions to the research question in a “problem-solution” framework. There are several alternatives for countering Russian dominance of the energy market. Each will be analyzed based on several metrics: perception of aggression (could Russia perceive this as an act of war and retaliate); likelihood of acceptance/compliance by European allies; potential consequences; timeliness; and cost. Although there is a significant and frequently documented linkage between energy and environmental policy, this paper’s scope is limited to energy security.

II. Background

In the Soviet era, the construction of gas pipelines from the USSR to Western Europe was considered a diplomatic achievement and “positive practical engagement” across the Iron Curtain.⁴ In the 1980s, this relationship was a practical one for the Soviet Union – it was more a method of monetizing its vast supply of natural gas than an attempt to gain political influence.

This early relationship has grown into a massive dependence upon Russian energy for much of Europe. Interestingly, the overall Russian share of EU natural gas imports has dropped from 80 percent in 1980 to just over 40 percent in 2008.⁵ However, these numbers are for Europe as a whole – it is the unevenness of current dependency that is more significant. Ten eastern European nations that joined the European Union since 2004 (all but one of which was a former member of the Soviet bloc)⁶ are heavily dependent upon Russian energy. Six of them import over 80 percent of their gas from Russia.⁷ Although these nations are heavily reliant upon the Kremlin, they are not the biggest consumers. Exports to Germany and Italy account for roughly 40 percent of Gazprom’s entire profits.⁸

The wide variance in dependency and the value of individual nations to Gazprom is a cause for concern for some policy experts. Although the Baltic and Eastern European nations are highly dependent upon energy imports from Russia, three of the largest

⁴ Vladimir Milov, *Russia and the West: the Energy Factor*. Europe, Russia, and the United States: Finding a New Balance Project (Washington, DC: Center for Strategic and International Studies and Institut Francias des Relations Internationales, July 2008), 8.

⁵ Pierre Noël, *Beyond Dependence: How to Deal with Russian Gas*, Policy Brief (Paris, France: European Council on Foreign Relations, November 2008), 1.

⁶ Hungary, Poland, Romania, Slovakia, Latvia, Estonia, Lithuania, Bulgaria, Czech Republic and Slovenia

⁷ Noël, *Beyond Dependence*, 9.

⁸ *Ibid*, 9.

European Union economies account for the vast majority of Russian exports. Dr. Ariel Cohen of the conservative Heritage Foundation considers the bi-lateral deals between state-operated Gazprom and Germany, France and Italy as a deliberate strategy to influence EU foreign policy.⁹ The merits of this argument will be debated in the next section, but there is overwhelming evidence that these three powerful members have prevented any reforms to the European energy market that would alter their relationship with Russia.¹⁰ Bi-lateral relationships enable the Kremlin to play favorites – nations on good terms with Russia receive cheaper gas than those out of favor with the Putin administration.

When subtlety fails, Russia has been known to utilize its near-monopoly on fuel sources as a blunt instrument. Supply disruptions have been used as an overt political tool more than 20 times since 1990.¹¹ Russia has famously clashed with Ukraine each winter since the Orange Revolution brought Ukraine's government out of the Russian sphere of influence and into the West's. Because 80 percent of the Russian natural gas exported to Europe is piped through Ukraine, the latest dispute, in January 2009, resulted in millions of Germans, Slovaks, Bulgarians, Moldovans and Italians going without heat for a week during the middle of winter.¹² Stated motives for this dispute ranged from price disagreements (Russia began charging Ukraine twice what it charged prior to the change in government) to accusations of theft. While these explanations are potentially

⁹ Ariel Cohen, PhD, *Europe's Strategic Dependence on Russian Energy* (Washington, DC: The Heritage Foundation, 5 November 2007), 1.

¹⁰ Kevin C. Smith, *Russian and European Energy Security: Divide and Dominate* (Washington, DC: Center for Strategic and International Studies, October 2008), 14.

¹¹ Ibid, 4.

¹² Vivienne Walt, "Why Europe Can't Abandon Russian Gas," *Time*, 23 Jan 2009.

true, most observers also view these displays as an attempt to both humiliate Ukraine and remind Europe of its vulnerability to Russian influence.

III. Key Issues

To determine if Russian energy tactics constitute a threat to the European Union and NATO, it is important to examine the relationship across a number of key issues. First, there are numerous infrastructure projects in the development stages that could alter how Europe receives its energy imports. Russian firms have also been very active in acquiring stakes in European energy corporations and infrastructure. A second issue is the blurred boundary between the Russian government and its state owned oil and gas enterprises. The links between the state and industry transform business negotiations into geo-political maneuvers. Finally, previous examples of energy disputes will be reviewed, including pricing wars with suppliers in the Caspian region and importers in Central Europe. All of these issues will be examined to ascertain whether Russian activities should be considered threatening or benign.

Pipelines and Infrastructure

A vast network of pipelines and storage facilities links the remote oil and gas fields of Siberia to the homes and power plants of Europe. This Russian-owned and operated infrastructure is also the primary conduit of oil and gas from the Caspian Sea region and Central Asia to the West. Two maps of this network are in Appendix A.

Approximately one third of Russian oil exports are via the Druzhba (“Friendship”) pipeline that transits through Belarus. There, it splits into a northern route supplying Poland and Germany and a southern route through Slovakia, Hungary, the

Czech Republic and Croatia.¹³ In total, this pipeline delivers 1.3 million barrels per day to Germany and central Europe.¹⁴

With gas, the dependency is more severe, primarily due to the complications of transporting natural gas. Oil is relatively easy to store and is a fungible commodity – it can be transported by pipeline, tankers, or trucks and is part of a mature global market. Gas, however, requires a direct connection between supplier and consumer. It is very expensive to store and its most transportable form, liquefied natural gas (LNG) is costlier and Europe does not have infrastructure in place to handle the current demand. This means that gas must flow continuously to consumers and it is very difficult to build up a strategic reserve.

This is a key concept because 80 percent of the natural gas transiting between Russia and Europe currently passes through Ukraine. Therefore, any disruption within Ukraine affects most of Europe. This is cause for concern for both the Kremlin and European consumers. In its public newsletter, Gazprom calls for more diversified routes “in order to mitigate the dangers posed by political interferences in transit countries, and also, by the risk of natural catastrophes and terrorist attacks.”¹⁵

Gazprom is driving two major projects to mitigate this chokepoint. The Nord Stream pipeline would link Russia directly to Germany, its largest customer. This joint venture is lead by former German chancellor Gerhard Schroeder, is expected to be operational by 2011 and is projected to cost €7.4 billion according to its website.¹⁶

¹³ Paul Starobin, “Send Me To Siberia,” *National Geographic* 213, no. 6 (June 2008): 72-73.

¹⁴ EIA, “Oil Exports,” *County Analysis Briefs: Russia*, http://www.eia.doe.gov/cabs/Russia/Oil_exports.html (accessed 23 May 2009).

¹⁵ Sergei Kuprianov, “Times of Crisis Present Challenges..., and Opportunities, in Moving Towards a More Transparent Global Energy Market,” *Blue Fuel - Gazprom Export Global Newsletter* (April 2009): 2.

¹⁶ Nord Stream, “10 Answers about the Pipeline Across the Baltic Sea,” <http://www.nord-stream.com/en/press0/ten-answers.html> (accessed 24 May 2009).

Buried within this public relations site is the significant fact that Gazprom is a 51 percent stakeholder in Nord Stream.

A similar pipeline, imaginatively named the South Stream, would transit beneath the Black Sea and deliver gas to the Balkans and Central Europe. Oleg Mityayev, an economics commentator for the state-run RIA Novosti,¹⁷ believes that South Stream will benefit not just the nations it passes through, but could also link into a major gas transportation hub in Austria, from where could be transported to Germany and Italy.¹⁸ This linkage to Italy is almost assuredly the plan because South Stream is a joint venture between Gazprom and the Italian energy firm, Eni.

Although it is still in the planning stages, South Stream is direct competition to the European Union's own €7.9 billion Nabucco pipeline project. Nabucco will begin in Baku, Azerbaijan, and transit through either Georgia or Iran to Turkey, eventually linking into the gas storage complex in Baumgarten, Austria¹⁹ – the same complex identified in South Stream's plans. Ideally, a separate Trans-Caspian Pipeline (TCP) project will build a connection beneath the Caspian Sea and link the vast gas resources of Kazakhstan and Turkmenistan into the network. This would provide Europe direct access to the Caspian and Central Asian gas fields without Gazprom involvement.

Many foreign policy and energy security experts see Gazprom's activities as part of a strategy to increase its dominance of the gas market and stifle competition. Dr. Cohen even goes so far as to refer to it as a "pincer pipeline attack on Europe" in his open

¹⁷ RIA Novosti is a Russian state-owned paper. The RIA is an acronym for Russian Information Agency

¹⁸ Oleg Mityayev, "South Stream's Russian Gas for Europe," *RIA Novosti*, 29 January 2009.

¹⁹ Nabucco Gas Pipeline International, "Project Description / Pipeline Route," <http://www.nabucco-pipeline.com/project/project-description-pipeline-route/project-description.html> (accessed on 23 May 09)

policy paper to the Obama Administration.²⁰ He warns that the Nord and South Stream projects combined with attempts to gain control of the North African gas export network could effectively put Europe at the Kremlin's mercy. Although he has the unfortunate habit of referencing his own published works as references, Cohen's arguments have merit if one assumes that all of the planned Gazprom projects come to fruition. However, Nabucco is closer to completion than South Stream and the emerging LNG market could provide significant competition. In addition to its joint pipeline ventures, Gazprom has been actively acquiring stakes in European energy companies (including some involved in the Nabucco project) and storage facilities such as Baumgarten. This appears to be of greater concern than additional (and necessary) pipelines.

Pierre Noël of the European Council on Foreign Relations and Kevin Smith from the Center for Strategic and International Studies are concerned that the bilateral agreements between Gazprom and individual nations (particularly Germany and Italy) are of great concern.²¹ This close relationship with major European powers gives Gazprom influence on European Union energy policy. With Germany and Italy receiving great benefit from Russian cooperation, they have no reason to build a strong, united EU front to counter Gazprom's dominance or participate in an expensive counter-pipeline to avoid Russia. This argument rings true because of Germany and Italy's continual resistance to European Commission attempts to reform Europe's gas market.²²

²⁰ Ariel Cohen, *Russia and Eurasia – A Realistic Policy Agenda for the Obama Administration*, Heritage Special Report SR-49 (Washington, DC: Heritage Foundation, 27 March 2009), 49.

²¹ Noël, *Beyond Dependence*, 2. and Smith, *Divide and Dominate*, 12.

²² Loyola de Palacio, "Reforming the Gas Market," in *Energy and Security: Toward a New Foreign Policy Strategy*, ed. Jan H. Kalicki and David L. Goldwyn (Washington, DC: Woodrow Wilson Center Press, 2005), 177.

The real question is whether Gazprom's actions are those of an industrial powerhouse seeking to increase market share and profits; or those of an instrument of the state seeking to increase Moscow's geo-political leverage over the region. Cohen and Smith both assume the latter for their arguments, but what is the relationship between Gazprom and the Kremlin?

Russian Politics and Energy

Gazprom was created out of the USSR Gas Ministry in 1989. During the 1990s, it was further transformed into a joint stock company. Despite company stock being publicly available, the Russian Federation still maintains a controlling stake – 50.002% of shares according to the official Gazprom website.²³ However, ownership is far from transparent. Elsewhere on the *same* official site, one can find a different capital structure with the state officially owning 38.37%, “Russian legal entities” claiming 36.1% and “Russian individuals” possessing an additional 14.03%.²⁴ These incongruent statistics are an excellent illustration of the opacity of Russian businesses. With many of the legal entities and individuals being part of the Russian state or affiliates of Gazprom itself, it is safe to say that the Kremlin has an ownership stake in the massive corporation.

Gazprom is, indeed, massive. Prior to the global financial crisis, it was the third largest company in the world. With a shifting array of more than 170 wholly owned, partially owned and associated affiliates and subsidiaries, Gazprom gives the state access to not only a gas exploitation and processing monopoly, but banks, influential print and

²³ Gazprom, “Gazprom in Questions and Answers,” <http://eng.gazpromquestions.ru/?id=10> (accessed 25 May 2009), pg 8.

²⁴ Gazprom, <http://www.gazprom.ru/eng/articles/article14964.shtml> (accessed 25 May 2009).

television media, investment management, construction, and foreign energy holdings, among other odds and ends.²⁵

The relationship between industry and state goes beyond controlling the majority of stock. Vladimir Putin protégé Dmitri Medvedev served as Gazprom's Chairman of the Board for seven years prior to succeeding Putin as President. The current Gazprom CEO, Alexei Miller, is a fellow Putin protégé and was appointed chief of the monopoly by the current Russian Prime Minister. Putin's personal philosophy is clear – his doctoral thesis was based on the argument that Russia's energy industry should be used to promote state interests.²⁶

Despite former energy minister Victor Khristenko's claim that Gazprom is "not a state company...it's a private company in which the state just happens to have a controlling stake,"²⁷ there is little doubt that the Kremlin controls the gas monopoly. One very sound argument for this case is made by Pavel Baev. Although acting out the state's wishes is generally a competitive advantage for Gazprom, it also has its limitations. Baev claims that recent aggressive business practices to remove foreign companies from the domestic energy sector has harmed Gazprom (by removing the expertise of foreign partners), but benefited Moscow.²⁸ Similarly, the Kremlin requires Gazprom to sell gas to many former republics at a cost dramatically lower than market rate. Clearly, business priorities are second to political concerns, implying that government control is strong.

²⁵ Gazprom, <http://www.gazprom.ru/eng/articles/article8526.shtml> (accessed 25 May 2009).

²⁶ Gregory Fiefer, "Gas Monopoly Fuels, Finances Moscow's Might (pt 1 of 3 part series)," *National Public Radio (NPR)*, 5 January 2009, <http://www.npr.org/templates/story/story.php?storyId=98965094> (accessed 24 May 2009).

²⁷ Ibid.

²⁸ Pavel K. Baev, "Russian Super-Giant in its Lair: Gazprom's Role in Domestic Affairs," in *Europe's Energy Security: Gazprom's Dominance and Caspian Supply Alternatives*, ed. Svante E. Cornell and Niklas Nilsson (Washington DC: Central Asia-Caucasus Institute and Stockholm Sweden: Institute for Security and Development Policy, 2008), 59.

At the same time, there appears to be concern for Gazprom growing too strong. After the Putin administration seized, dismantled and auctioned off assets of the immense oil company Yukos, Gazprom positioned itself to become a leading power in the oil industry (and, thus, dominating the entire Russian energy market). However, strife within the Kremlin inner circle, likely due to fears of Gazprom becoming too powerful, resulted in another state-owned entity, Rosneft, securing what was left of Yukos.²⁹ In a simple auction, there is little chance Gazprom would have been outbid by the much smaller Rosneft, but maneuverings within government factions once again proved that the Kremlin was stronger.

These examples all point to strong government control over Gazprom and its subsidiaries. It is therefore reasonable to argue that actions taken by Gazprom are at the behest of Moscow and, thus, political goals supersede pure profit motives. If the Kremlin pulls the strings, then are Gazprom's tactics a geo-political threat, or simply an aggressive competitor acquiring market share?

A History of Disputes

On 1 January 2009, Russia sharply reduced gas supply to Ukraine in a dispute that was publicly over Ukraine's refusal to pay higher gas prices. As tensions escalated, Russian (state-owned) media began adding accusations of Ukraine siphoning off gas intended for European customers. On 7 January, Prime Minister Putin gave the order for Ukrainian gas to be completely shut off, effectively cutting off gas delivery to much of Europe. For 13 days, more than 15 countries were affected by gas shortages in the middle of winter.

²⁹ Ibid, 61.

Facts on the dispute are hard to come by – primarily due to the murky relationship between Gazprom, Ukrainian gas company Naftohaz, and obscure intermediary RosUkrEnergo (a Gazprom subsidiary) plus the virtually complete lack of transparency of their business practices. Russia claimed theft and the right to raise prices from a subsidized rate of \$179.50 per 1000 cubic meters to a price closer to the average market price, \$418.³⁰ Ukraine claimed that this was an unfair price because they should be compensated for transiting gas from Russia to Europe.

This wasn't the first Ukraine-Russia gas dispute. In March 2005, Gazprom made its first attempt to raise prices. Russian-Ukrainian relations were very contentious after the Orange Revolution that had removed the Russia-friendly Yanukovic government and replaced it with the Western-friendly Yushchenko government in January. The dispute escalated to the point that gas was shut off on 1 January 2006 for three days. Gazprom later threatened to shut off gas in February 2008, ostensibly over gas prices. Coincidentally, this was the same week Ukraine joined the World Trade Organization.³¹

In each case, prices were the overt dispute, but underlying political tensions were significant factors. Gazprom maintains that it is under no obligation to subsidize gas to Ukraine. This is a fair business decision. However, Russia provides cheap gas to most former Soviet republics and only chose to raise Ukraine's rates after a West-leaning government came to power.

Ukraine is not the only nation be threatened by energy disruptions. In 2002-03, Latvia's oil supply was interrupted when Riga rebuffed Moscow's attempts to takeover

³⁰ "Q&A: Russia-Ukraine Gas Row," BBC.com, 20 January 2009, <http://news.bbc.co.uk/2/hi/europe/7240462.stm> (accessed 27 May 09).

³¹ "Gazprom Threatens Ukraine Gas Cut," BBC.com, 7 February 2008, <http://news.bbc.co.uk/2/hi/business/7233401.stm> (accessed 27 May 09).

the oil port of Ventspils Nafta.³² After two explosions ceased gas flow into Georgia and a third explosion destroyed a major electrical transmission line in the January 2006, Georgian President Saakashvili accused Moscow of sabotage (although he was unable to produce any hard evidence to prove his claim).³³ A pipeline into Lithuania was permanently closed in 2006 after the Mazeikiu Nafta oil refinery was sold to a Polish company rather than a Russian bidder.³⁴ Oil supplies into the Czech Republic were halved immediately after the Czechs signed a missile defense agreement with the United States in July 2006.³⁵ In 2007, oil delivery into Belarus was temporarily halted after a gas tariff dispute.³⁶

A much more complex dispute with Georgia resulted in open hostilities in August 2008. The brief war had numerous factors, including Georgian provocation (real or perceived) and Moscow's desire to humiliate and discredit Saakashvili. However, Georgia's role as a potential "safe corridor" for pipelines that could avoid Iran and Russia might also have been a target.³⁷ Four major gas and oil pipelines currently transit Georgia from the Caspian region and the route for Nabucco is also planned to pass through here. Russia's invasion, much like its disputes with Ukraine, served to alarm Europe and bring those nations' reliability into question.

³² Michael Lelyveld, "Russia: Moscow Seeks Takeover of Latvian Oil Port," Radio Free Europe/Radio Liberty, 12 February 2003, <http://www.rferl.org/content/article/1102205.html> (accessed 25 June 09).

³³ "Russia blamed for gas 'sabotage'," *BBC.com*, 22 January 2006, <http://news.bbc.co.uk/2/hi/europe/4637034.stm> (accessed 27 May 09).

³⁴ "Russia won't reopen oil pipeline, Lithuania says," *Reuters UK*, 11 October 2007, <http://uk.reuters.com/article/idUKL1159854520071011> (accessed 25 June 09).

³⁵ Andrew Kramer, "Russia: Czech oil supply will be restored," *New York Times*, 22 July 2008, <http://query.nytimes.com/gst/fullpage.html?res=9F04E2DC1F39F931A15754C0A96E9C8B63&fta=y> (accessed 27 May 09).

³⁶ Alex Spilius, "Russia Shuts of Oil Pipeline in Trade Dispute," *The Telegraph*, (10 Jan 2007) <http://www.telegraph.co.uk/news/worldnews/1539018/Russia-shuts-oil-pipeline-in-trade-dispute.html> (accessed 27 May 09).

³⁷ "The Dangers of the Safe Route," *Economist*, 14 August 2008, http://www.economist.com/world/europe/displaystory.cfm?story_id=11920984 (accessed 27 May 09).

Most of these disputes have questionable motives and can be blamed on both sides (although perhaps not equally). What can be determined, however, is that Russia has used its energy leverage to achieve political objectives. However, few of the examples cited were specifically targeted against a current member of the EU or NATO³⁸ (Czech Republic and Latvia being the most notable exceptions) so how can these disputes with former Soviet republics be conflated into a threat to America's NATO allies?

Threat is a function of both vulnerability and probability. On the surface, the EU's vulnerability does not seem overwhelming – relying on Russia for 40 percent of gas imports is significant, but not potentially debilitating. However, that figure is for the EU as a whole. While some nations rely on little or no Russian natural gas, eight EU members rely on Gazprom for over 74 percent or more of their total domestic gas consumption (see Figure 1 and Figure A.2). Two of those nations, Finland and Slovakia, are 100 percent dependent upon Russia.³⁹ Three other nations – France, Italy and Germany – account for more gas by volume than the rest of the EU combined.⁴⁰

The threat lies in Moscow's exploitation of these differences. Gazprom regularly extends privileged energy agreements to its closest strategic partners, such as inviting German energy companies involved in the Nord Stream project to participate in gas exploitation projects in Siberia.⁴¹ At the same time, highly dependent nations are intimidated by Russian price wars and its history of using energy supply to achieve political gains. Therein lies the vulnerability – Moscow possesses the means to

³⁸ The Baltic nations were not members of the EU or NATO during their conflicts in the 1990's

³⁹ EIA, "Country Profile: Russia."

⁴⁰ Ibid.

⁴¹ Noël, "Beyond Dependence," 9.

intimidate energy insecure nations (primarily former Soviet satellites) while receiving political cover by enticing its closest allies.

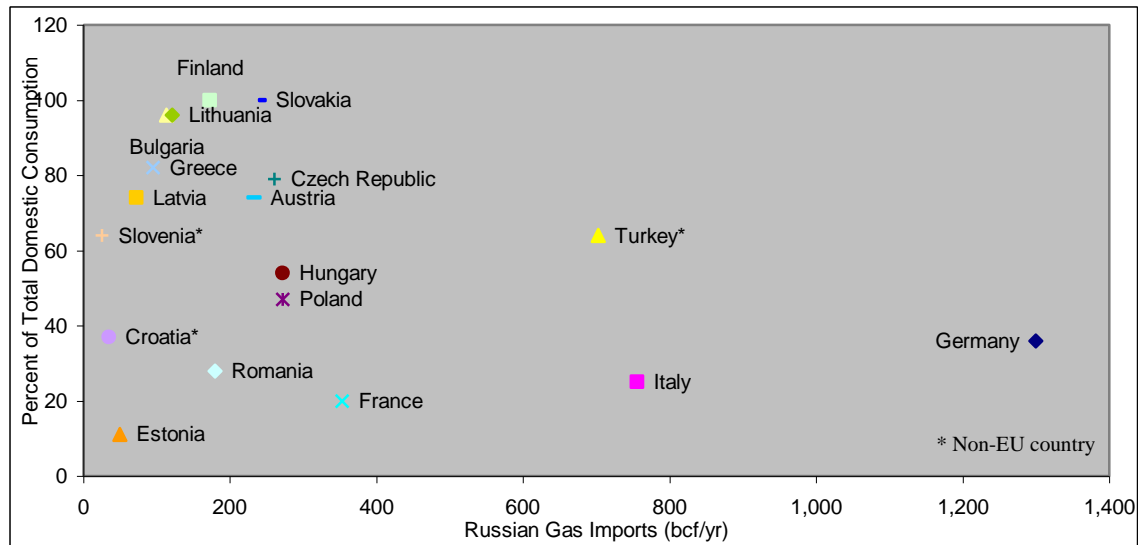


Figure 1 Russian Gas Imports by EU and NATO Countries (2006)⁴²

Why does that make Russia a threat when many nations depend heavily upon others for energy imports? Canada, for example, is not a threat to the United States, despite being our largest source of oil imports and accounting for 90% of our natural gas imports.⁴³ This dependence is magnified by the volume of US domestic oil that transits through Canadian territory via pipelines from Alaska. The biggest difference is that Canada has never displayed a penchant for exploiting this relationship to satisfy political objectives. If Ottawa had decided to dramatically raise gas prices following the election of Barack Obama or cut off oil after the Iraq invasion, American dependence upon Canadian energy would certainly be considered threatening. It is the overwhelming

⁴² Source of data: EIA, "Country Profile: Russia." Chart created by author.

⁴³ EIA, http://tonto.eia.doe.gov/dnav/pet/pet_move_impqus_a2_nus_ep00_im0_mbb1_m.htm and http://tonto.eia.doe.gov/dnav/ng/ng_move_impqsl1_m.htm (accessed 30 May 2009).

dependency of some European nations on Russian gas and oil combined with Moscow's history of exploiting its energy relationships that makes it a risk.

IV. Method of Analysis

What can be done to counter this threat to the United States' European and NATO allies? A number of potential courses of action are available in two broad categories: diversification and legislation. To compare these approaches, each will be measured by a series of metrics: risk of open conflict, potential for unintended consequences, likelihood of EU member acceptance, timeframe and cost.

Risk of open conflict is a judgment of whether or not an option could be considered too antagonistic and spark escalating hostilities with Russia. Discussing unintended consequences will be an attempt to determine how a course of action could result in a worse situation or adversely affect EU and NATO nations. Because Europe is already divided on how to interact with Russia, particularly when it comes to energy security, options must be judged on whether sufficient EU votes could be attained in support of the alternative. Some options are short-term solutions that can be enacted relatively quickly (months to years) while others are very long term (decades). While timeframe will not eliminate an option on its own, it is useful for both binning the options and can affect the price tag. Finally, the overall cost in dollars and resources must be considered. Obviously, these metrics are all inter-related – a high-cost option with potential for infuriating the Kremlin will likely also be unpopular with EU members.

This paper will focus on two broad sets of possible courses of action: increasing energy diversity and taking legislative action. None of these options will be an easy cure-

all and none of them can operate in a vacuum. It is a given that a blend of responses will be necessary.

V. Diversity Alternatives

Energy diversity for Europe has three aspects: diversity of transportation, diversity of provider, and diversity of source. Transport is simply a measure of how many ways energy can reach European customers. By increasing the potential avenues of receiving oil and gas, one reduces the risk of a single point of failure disrupting energy supply to multiple customers. Purchasing energy supplies from a wider variety of countries can reduce the risk of a single foreign government utilizing its exports to gain political advantage. The final dimension concerns the source of energy. A transition from a fossil fuel-based economy to nuclear and renewable sources could eventually make Europe more energy independent and improve its overall energy security.

Transportation Diversity

One aspect of European energy security that virtually all Russian and European parties can agree on (albeit for different reasons) is that gas transport must expand out of the Ukraine-Belarus corridor. The seemingly annual disputes between Kiev and Moscow over gas prices and the resulting disruptions have made it painfully obvious that it is very risky to continue transporting 80 percent of Russian imports through this chokepoint.

Russia's solution has been to focus on forging bilateral agreements, primarily with Germany and Italy, to create new northern and southern routes that avoid Ukraine: the Nord Stream and South Stream Pipelines. This approach will serve two purposes for the Kremlin. It will drastically limit Ukraine's ability to both profit from transit fees

(serving as a punishment for Kiev's recent attempts to evade Russian influence) and influence Russian exports. It will also allow Gazprom to de-conflict two competing strategic goals: money will be made by directly linking Russian gas fields to Gazprom's most profitable customers and the Kremlin will have a freer hand to influence highly dependent former Soviet satellites by permitting politically-motivated disruptions with less collateral damage.

Both of these pipelines are enormously expensive and politically complicated. They are also medium to long-term solutions due to the length of construction and negotiation time required for trans-national pipelines. Gazprom's Nord and South Streams transit beneath the Baltic and Black Seas, respectively, dramatically increasing their costs, but also eliminating transit fees, which are the largest single operating expenses for the gas giant.⁴⁴ While Moscow owns a controlling interest in these two projects, they both serve the worthy goal of providing gas that avoids the troublesome Ukrainian/Belarus routes, most likely stabilizing the gas supply of richer European nations. An unintended consequence could be giving the Kremlin more leverage over highly dependent eastern nations by limiting the "collateral damage" of cut-offs and price wars. The European Commission has endorsed the Nord Stream and does not officially oppose South Stream.⁴⁵

Provider Diversity

The largest non-Gazprom pipeline project is Nabucco, which would begin in Azerbaijan, pass through Georgia and/or Armenia into Turkey, and terminate in Austria. While access to Azeri gas supplies will be helpful, Nabucco's success hinges on gaining

⁴⁴ Jeffery Mankoff, *Eurasian Energy Security*, Council Special Report No. 43 (New York, NY: Council on Foreign Relations, February 2009), 15.

⁴⁵ Ibid, 15.

access to the rich Central Asian gas fields of Turkmenistan, Uzbekistan and Kazakhstan. A proposed Trans-Caspian Pipeline (TCP) would link Azerbaijan to Kazakhstan and Turkmenistan and feed into Nabucco, avoiding both Iran and Russia in the process. Currently, these Caspian nations can only deliver their gas to Europe via Gazprom's infrastructure. A Nabucco/TCP route would provide both an alternate source for Europe and an alternate customer for Central Asian nations, reducing Moscow's leverage on both consumers and producers.⁴⁶ This would likely have the consequence of raising the price that Gazprom pays for Central Asian gas.⁴⁷

For this reason and others, Moscow openly opposes Nabucco, claiming that the best route from central Asia to Europe is via Gazprom. Russia has moved to preemptively purchase all Azeri gas intended for the pipeline⁴⁸ and is developing similar arrangements with Turkmenistan and Kazakhstan, bringing the viability of Nabucco/TCP into question. Vladimir Putin has traveled to each nation in the Nabucco route to press for an end to the project.⁴⁹ One of these trips resulted in Gazprom acquiring a stake in the Baumgarten gas storage facility in Austria⁵⁰ – the planned distribution center for Nabucco.

⁴⁶ Nicklas Norling, "The Nabucco Pipeline: Reemerging Momentum in Europe's Front Yard," in *Europe's Energy Security: Gazprom's Dominance and Caspian Supply Alternatives*, ed. Svante E. Cornell and Niklas Nilsson (Washington DC: Central Asia-Caucasus Institute and Stockholm Sweden: Institute for Security and Development Policy, 2008), 127.

⁴⁷ Sergei Blagov, "Russia Tries To Scuttle Proposed Trans-Caspian Pipeline," Eurasianet.org, 28 Mar 2006, <http://www.eurasianet.org/departments/insight/articles/eav032806.shtml> (accessed 10 June 2009).

⁴⁸ Torrey Clark and Stephen Bierman, "Gazprom Ready to Buy All Gas From Azeri Nabucco Base," Bloomberg.com, 15 May 2009, <http://www.bloomberg.com/apps/news?pid=20601072&sid=aILP9kdAZqEw>, (accessed 10 June 2009).

⁴⁹ Zeyno Baran, "Developing a Cohesive EU Approach to Energy Security," in *Europe's Energy Security: Gazprom's Dominance and Caspian Supply Alternatives*, ed. Svante E. Cornell and Niklas Nilsson (Washington DC: Central Asia-Caucasus Institute and Stockholm Sweden: Institute for Security and Development Policy, 2008), 163.

⁵⁰ Norling, "The Nabucco Pipeline," 131.

If central Asian gas fields are unavailable, one politically volatile alternative is to transport Iranian gas via Nabucco. This option is vehemently opposed by the US, one of the primary proponents for the pipeline.⁵¹ America would prefer to avoid a close energy relationship between Iran and Europe because it could undermine efforts to sanction the Khamenei regime for supporting terrorism and developing nuclear weapons.

While expensive, Nabucco is generally supported by most EU nations (Germany and Italy being notable exceptions). However, due to its political complications and lack of a concrete source of sufficient fuel, its future is in greater doubt than the Gazprom-controlled pipeline projects.

Three new gas pipelines are being built between Europe and North African fields in Algeria, Egypt, Morocco and Libya. In 2008, EU Energy Commissioner Piebalgs also proposed a trans-Saharan pipeline to add Nigerian gas to the Algerian hub.⁵² While this could provide a welcome new source of natural gas, it would make Algeria, already Europe's third largest supplier and not the most stable nation, into an even more significant energy partner. Russia has also been actively engaged in this region, partnering in multiple gas projects and acquiring stakes in North African firms, so this alternative may not be very different from working directly with Gazprom.⁵³

Source Diversity

While a comprehensive analysis of non-fossil fuel solutions is beyond the scope of this paper, it is important to examine increased use of renewable and nuclear energy as a mid- to long-term alternative to Russian energy. Currently renewable energy sources (including photovoltaic solar, solar collection, biomass, wind, hydroelectric, bioethanol

⁵¹ Ibid, 137.

⁵² Francis Ghiles, "Europe's Southern Escape," *Wall Street Journal*, 9 January 2009.

⁵³ Smith, "Divide and Conquer," 9.

and biogas) account for 8.5 percent of total EU consumption.⁵⁴ The EU's stated goal is for renewables to comprise 20 percent of the region's total energy mix by 2020. Ideally, greater reliance upon renewable sources would significantly increase Europe's energy independence, but with current technology, these sources are not cost-competitive with coal, oil or gas without significant government subsidies.⁵⁵ If one or more technologies advance past the goal of becoming cheaper than coal, however, this calculus will change swiftly.

While renewable energy is warmly embraced throughout the EU, a more technologically mature solution, nuclear power, is fraught with political baggage. Although technology has dramatically improved safety, public opinion in most EU nations (France being the notable exception) still opposes greater investment in nuclear plants.⁵⁶ In addition, most of the nuclear infrastructure in Eastern Europe was built in the Soviet era and is of questionable safety. The continued fear of nuclear technology and/or fuel being stolen for weapons programs has limited the willingness of the US, France and the U.K. to aid these nations in improving their nuclear infrastructure.

VI. Legislation Alternatives

While pipelines and diverse sources of energy all require research and infrastructure investments and tend to be longer-termed solutions, there are a number of legal and regulatory avenues that can alter the energy security balance of Eurasia. The EU can utilize its existing anti-monopoly legislation to counter some of Gazprom's

⁵⁴ Energy.EU. *Europe's Energy Portal*. <http://www.energy.eu/#non-renewable> (accessed 10 June 09).

⁵⁵ Wind and solar were close to matching oil and gas costs during the \$140/barrel days of 2008, however.

⁵⁶ Geoffrey Carr, "The Future of Energy: The Power and the Glory," *Economist*, 19 June 2008, Special Report insert.

heavy-handed tactics. With a significant regulatory overhaul, Europe could transition its gas infrastructure into a full-fledged gas market. Unfortunately, none of these are new ideas, and they all have obstacles to overcome before they can be instituted.

Enforcing Anti-trust Laws

The EU already has legislative tools in place to counter some of Gazprom and Transneft's monopolistic activities. Most significant is Article 82 of the European Community Treaty. This article prohibits anti-trust and anti-competitive behavior on the part of foreign companies doing business within the EU.⁵⁷ This is the Article cited in recent anti-trust litigation against Intel and Microsoft. However, despite Gazprom's monopolistic position between Caspian gas fields and the European market and its use of that monopoly to achieve 100 to 800 percent profits in that role, no EU member has brought a case against the company. As Pierre Noël wryly notes, such litigation would be unlikely to drive any change in Moscow's behavior.⁵⁸

In fact, this strategy runs a high risk of worsening the Brussels/ Moscow relationship while providing little foreseeable change in Gazprom practices. The highest-profile international case citing Article 82 began against Microsoft in 1993 and has continued in various forms to present day, despite the fact that political ramifications are minimal. A trial on whether or not Gazprom has abused its dominant position would have numerous political layers and could similarly last a decade or more. European Commission President Barroso advised energy companies to sue Gazprom following the 2009 Ukraine dispute, but no companies did so, likely due to fear of reprisal from

⁵⁷ Smith, "Divide and Conquer," 7.

⁵⁸ Noël, "Beyond Dependence," 3.

Moscow.⁵⁹ If the political dimension could be reduced, the European Commission would be far more likely to pursue enforcement of Article 82.

Regional Gas Market Integration

The logistics of oil and natural gas are significantly different. Oil is relatively easy to transport – it can transit via pipeline, train, ship or truck and, consequently, is a highly fungible commodity traded in a mature, economically liquid market. This freedom allows both suppliers and consumers to seek out the best prices, creating the market forces that set the price for oil.

Natural gas, however, relies primarily on pressurized pipelines directly linking gas fields to customers. This results in a very illiquid market with little competition due to the primacy of bi-lateral contracts. The limitations of the infrastructure and these bi-lateral agreements prevent consumers from seeking lower prices from competitors and prevent suppliers from selling their resources to the highest bidder. The cost and importance of these bi-lateral contracts in Europe ensures that national governments or nationalized energy companies are heavily involved, thus adding additional layers of political complexity and costs into the equation.

If the EU can muster the political will, however, the regional gas market can be liberalized to approach the liquidity of the oil market. Two key obstacles are currently preventing this from becoming reality.

First, contracts with Gazprom prohibit gas re-sale. This prevented Poland, for example, from selling excess natural gas to Ukraine during its disputes with Russia. This is also the mechanism that allows the Kremlin to subsidize or over-charge highly

⁵⁹ Phillipa Runner, “Gas war costing EU ‘hundreds of millions a day’,” *EU Observer*, European Council on Foreign Relations, 14 Jan 2009. http://ecfr.eu/content/entry/gas_crisis_cost_pierre_noel_ecfr/ (accessed 14 May 2009).

dependent clients – nations relying on Russia for 80 percent of their fuel have no alternative sources to buy from. By prohibiting clients from re-selling their natural gas, Gazprom ensures their monopoly over the gas supply and retains their ability to set different prices for individual nations based on the political desires of the Kremlin. Overcoming this will require a united EU front to force changes in existing and future contracts. Currently, because they enjoy relatively beneficial agreements with Gazprom, Germany, France and Italy have countered attempts on this front.⁶⁰

Second, the regional gas infrastructure would require additional investment. Currently, the Russia-dominated gas pipelines flow out of Siberia into Europe. Additional cross-connecting pipelines would need to be built within Europe to enable freer transmission of gas between nations. Building a more robust storage system would enable nations and companies to stockpile and re-sell gas in accordance with market forces. While expensive, the political and fiscal costs of this infrastructure would be far less than proposed pipelines to the Caspian and North Africa. Because legal trade frameworks are already in place, linking EU members by pipeline is far less complicated than the political acrobatics required to transit Turkey, Georgia, Iran and Azerbaijan.

Liquefied natural gas would dramatically aid this market liberalization. As LNG becomes more technologically mature and, therefore, more cost-competitive, the market can come much closer to the freedom that oil enjoys – it would no longer be bound by a rigid pipeline infrastructure. A focus on developing LNG would also open Europe up to global sources such as the United States, Canada and South America.⁶¹

⁶⁰ Noel, “Beyond Dependence,” 12.

⁶¹ De Palacio, “Reforming the Gas Market,” 188.

These contractual and infrastructure improvements would dramatically alter the Russian-European energy relationship. If Bulgaria could sell its subsidized gas to Austria for a profit or if Ukraine could turn to Germany when Russia charges greater-than-market price, much of the political leverage enjoyed by the Kremlin would dissipate. Russia would still retain its most important customer, Europe, but would have less of an ability to wield the price of gas as a political tool. It would also dramatically increase the individual energy security of the highly dependent Eastern European and Baltic EU members,⁶² which would, in turn, improve the overall energy security situation for all of Europe and NATO.

There could be significant unintended consequences to this approach, of course. Those nations currently relying on Moscow's gas subsidies would have to pay market prices for their energy. Increased liberalization could make European energy corporations more vulnerable to being acquired by Gazprom. There is also the growing concern in some circles of Russian attempts to create an international gas cartel similar to OPEC.⁶³ Although Europe's second largest supplier, Norway, would be unlikely to participate, the growing bonds between Algiers, Tripoli and Moscow could bring much of Europe's gas supply under the control of this "gas OPEC." However, Russia's historically strained relationship with current OPEC members (who make up the majority of candidates to join a gas cartel) makes it unlikely that Moscow would be able to dominate such a global organization.

⁶² Pierre Noel, "Europe Needs a Single Market for Natural Gas," *Financial Times*, 15 May 2008. http://www.ft.com/cms/s/0/2fdfece-2216-11dd-a50a-000077b07658.html?nclink_check=1 (accessed 14 May 2009).

⁶³ Cohen, "Russia and Eurasia," 31.

VII. Recommendations

There is not a perfect solution for ensuring energy security for our European Union and NATO allies. All of the options examined have a flaw or counterpoint to consider and all have merits. As discussed earlier, there is no point in pursuing a single option while ignoring the others, but this paper will recommend the best avenue for the European Union to pursue and the best approach that the United States can directly support.

The single most important goal is to reduce or eliminate Moscow's ability to utilize its energy dominance to politically influence Europe or to threaten European energy supplies. The best method of accomplishing this is by integrating Europe's natural gas markets in the near- to mid-term. By increasing the liquidity of the gas market, Russia's relationship with Europe would no longer be based on bi-lateral agreements that allow Moscow to curry favor with some nations while threatening the supply of others. Instead, Gazprom would be able to sell the same volume of gas as before, but into a European market with the price determined by market principles. This will both secure Europe the gas it needs to prosper and reduce the Kremlin's ability to influence European policy by exploiting the differences in member nation gas dependency. Interestingly, this arrangement could also benefit Moscow. By opening the rest of Europe to its gas, Gazprom would gain customers it cannot reach with its present infrastructure.

This market liberalization will reduce any inherent threats to new Gazprom pipelines. However, it is primarily an EU solution that the United States should support diplomatically, but cannot directly support. Also, this unified EU market might not fully

incorporate non-EU NATO members, such as Turkey and Croatia, or potential NATO members such as Georgia. The greater focus for the US, therefore, should be to continue investment in Nabucco, TCP and other diversification efforts to gain access to the Caspian region in the long term. A direct link to Turkmenistan and neighboring Central Asian nations would dramatically improve Europe's energy security. It is also in the United States' interest to encourage economic development and improve the welfare of these Central Asian nations by providing this direct link that permits them to charge market prices to both the EU and Russia.

These two options, while far from perfect, offer the best opportunity to continue to trade with Russia as energy partners, but to do so in a unified fashion rather than as fractious individual governments. By increasing competition through greater market liquidity and a greater number of suppliers, European nations will have a stable supply of energy and dramatically improved energy security.

VIII. Conclusion

European energy supplies are not secure. While individual nations have varying levels of energy security, too many EU members, particularly those in Central and Eastern Europe, rely almost completely upon Russian state-owned monopolies for their energy supply. These monopolies act at the behest of the Kremlin and political motivations often outweigh financial incentives. The Putin administration has proved time and again in Ukraine, Czech Republic, Belarus, Poland, Lithuania, Georgia and others nations that it is willing and able to wield its energy dominance as a weapon of

foreign policy. It is in the EU's best interest to enact policies that can limit this Russian influence over its members.

This paper determined that the best method to limit Moscow's leverage would be to integrate the European gas market. By moving from a system of bi-lateral agreements to a liquid market, the Kremlin would no longer be able to "play favorites" or threaten highly dependent nations. Similarly, by linking directly to suppliers in Central Asia, competition would reduce Gazprom's ability to set prices, provide a larger variety of sources for European trade, and limit Moscow's influence over highly dependent Eastern European, Baltic and Central Asian nations.

Russia will remain Europe's largest energy partner for the foreseeable future. This in itself is not a problem. The problem lies in Moscow having the ability to use this relationship for political ends. Decoupling much of the politics from natural gas by creating a regional market and competition will dramatically increase the energy security of all of the European Union's members.

Appendix A
Maps and Figures

APPENDIX A

A.1 Primary Russian Oil and Gas Pipelines to Europe



Source: Energy Information Administration (EIA). "Country Analysis Briefs: Russia," <http://www.eia.doe.gov/emeu/cabs/Russia/Maps.html> (accessed 12 May 2009).

APPENDIX A

A.2 Russian Gas Exports per Country

Country	2006 Exports (bcf/y) [†]	2007 Exports (bcf/y) [†]	2006 % of Domestic NG Consumption
European Union			
Germany	1,339	1,378	37%
Italy	756	742	25%
France	353	346	20%
Czech Republic	261	247	79%
Poland	272	247	47%
Hungary	272	226	54%
Slovakia	240	223	100%
Austria*	233	191	74%
Finland*	173	166	100%
Romania	180	138	28%
Lithuania	99	122	96%
Bulgaria	113	120	96%
Greece	95	111	82%
Latvia	49	72	74%
Estonia	25	49	11%
Non-EU NATO members			
Turkey	703	828	64%
Croatia	35	35	37%
Slovenia	25	18	64%
Other Notable Nations			
Ukraine*	2,085	2,240	66%
Belarus*	724	763	98%
Armenia*	57	71	99%
Georgia*	49	36	99%
Kazakhstan*	28	32	3%

* Denotes non-NATO country

[†] bcf/yr = billion cubic feet per year

Source: Data derived from Energy Information Administration (EIA), “Country Analysis Briefs: Russia – Natural Gas,” <http://www.eia.doe.gov/emeu/cabs/Russia/NaturalGas.html> (accessed 31 May 2009) and *BP Statistical Review of Energy, 2008*, 27. Chart created by author.

APPENDIX A

A.3 Current and Proposed Gazprom Pipelines to Europe



Source: NPR.org. <http://www.npr.org/news/graphics/2009/jan/russia-pipeline/index.html> (accessed 24 May 2009). The webpage is an interactive graphic with additional information on each pipeline.

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